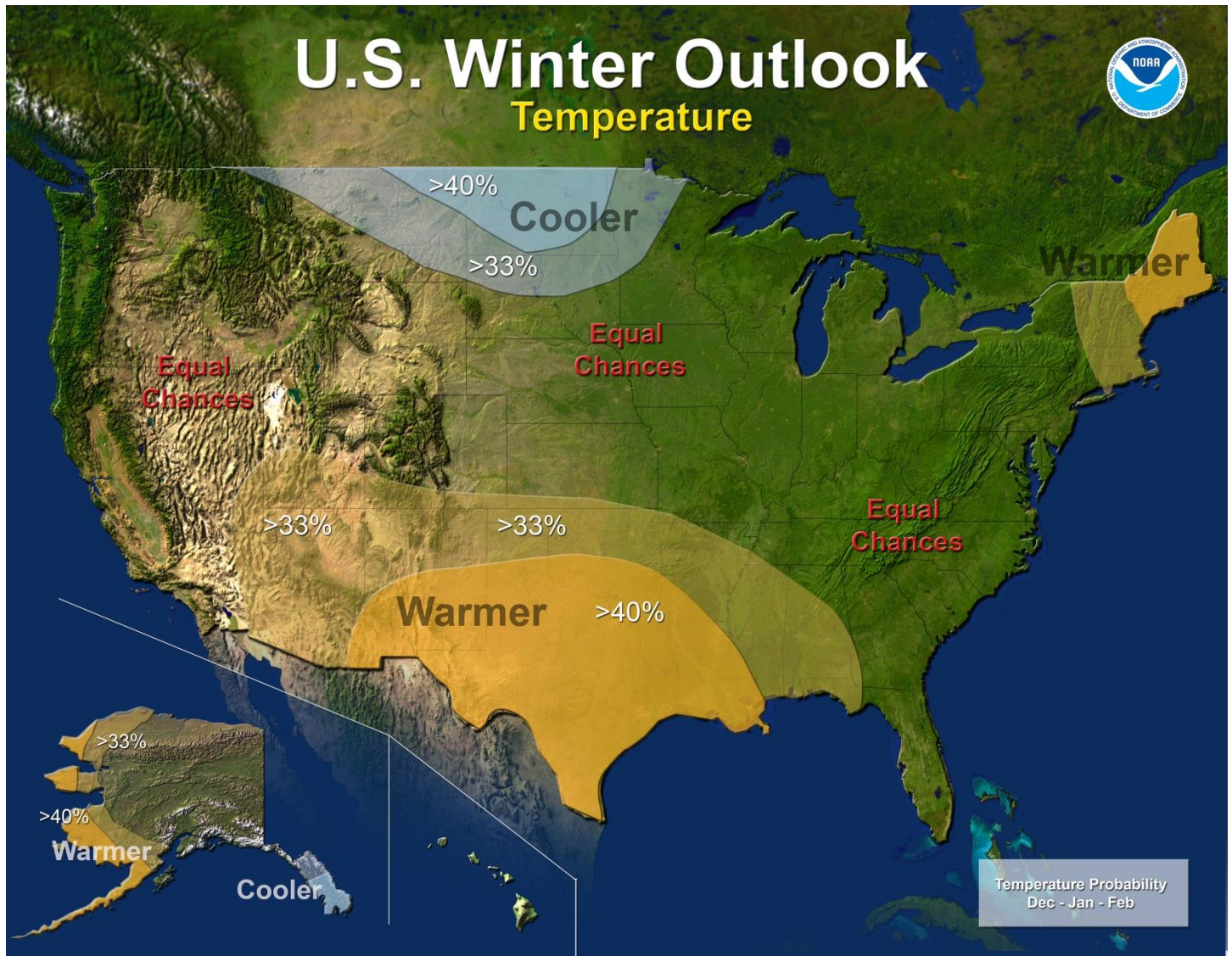
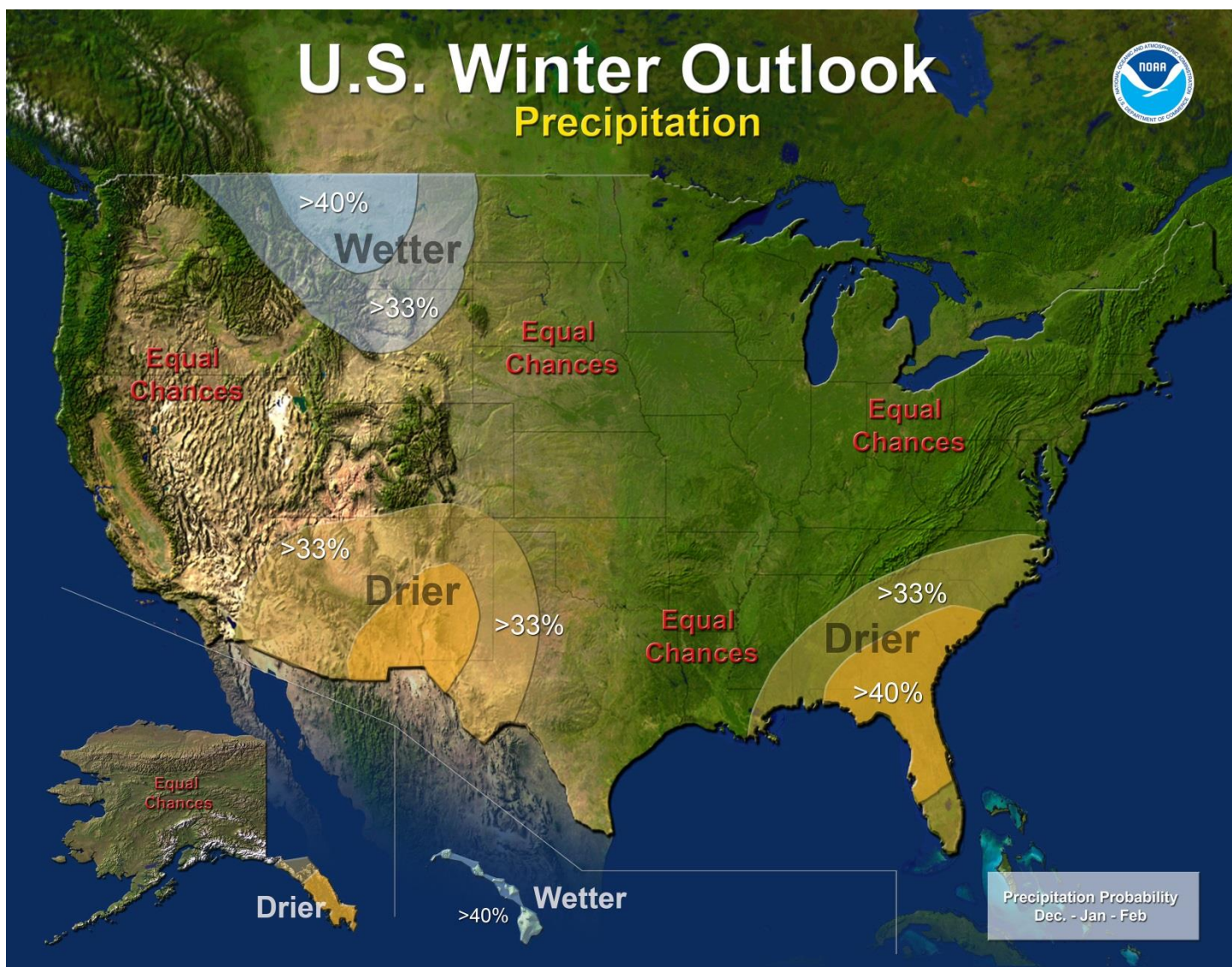


2013-2014 Winter Outlook for South Central and Southeast Colorado

The Climate Prediction Center (CPC) of the National Weather Service has recently issued the [Outlook for the 2013-2014 Winter Season across the United States](#).



The above graphic depicts CPC's Temperature Outlook for December 2013 through February 2014 and indicates a better chance for warmer than normal conditions through the winter for the southwestern US through the southern Rockies, the southern High Plains, portions of the western Gulf States, portions of New England, and Western Alaska. The outlook also indicates better chances for below normal temperatures across portions of the northern tier of States and the Alaskan panhandle. The following graphic illustrates CPC's Precipitation Outlook for the 2013-2014 Winter Season and indicates an equal chance of above, below and near normal precipitation for much of the United States, save a slight nod to drier than normal conditions in the Southwest, Southeast, and the Alaskan panhandle, along with a slightly better chance for above normal precipitation in the Northern Rockies, particularly over Montana and northern Wyoming and in Hawaii.

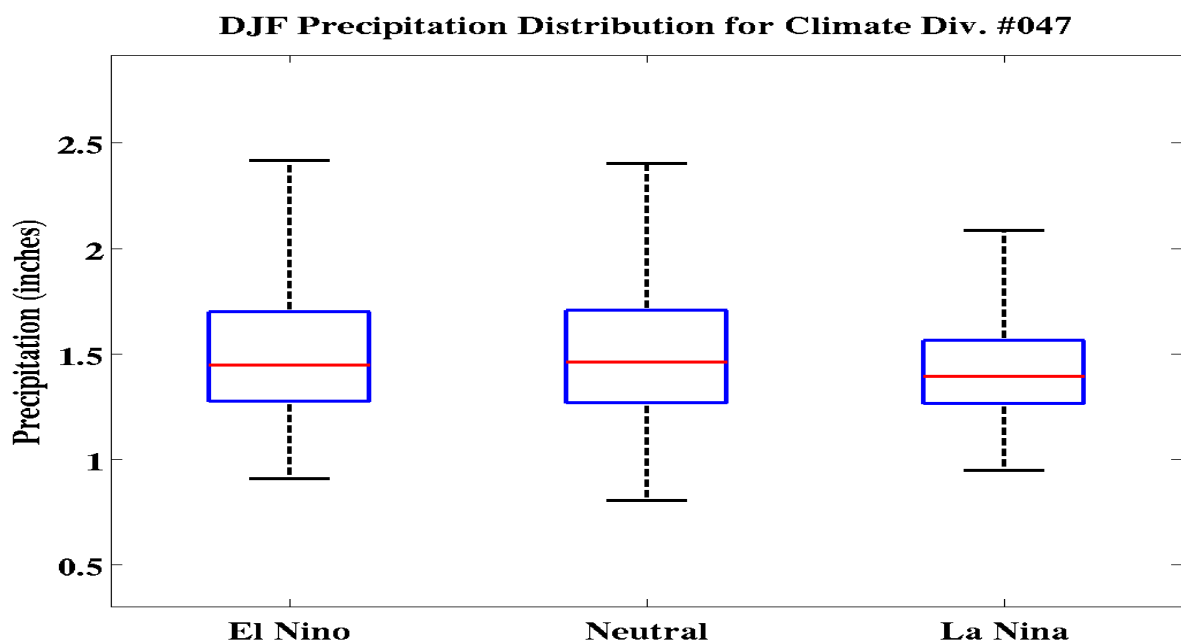
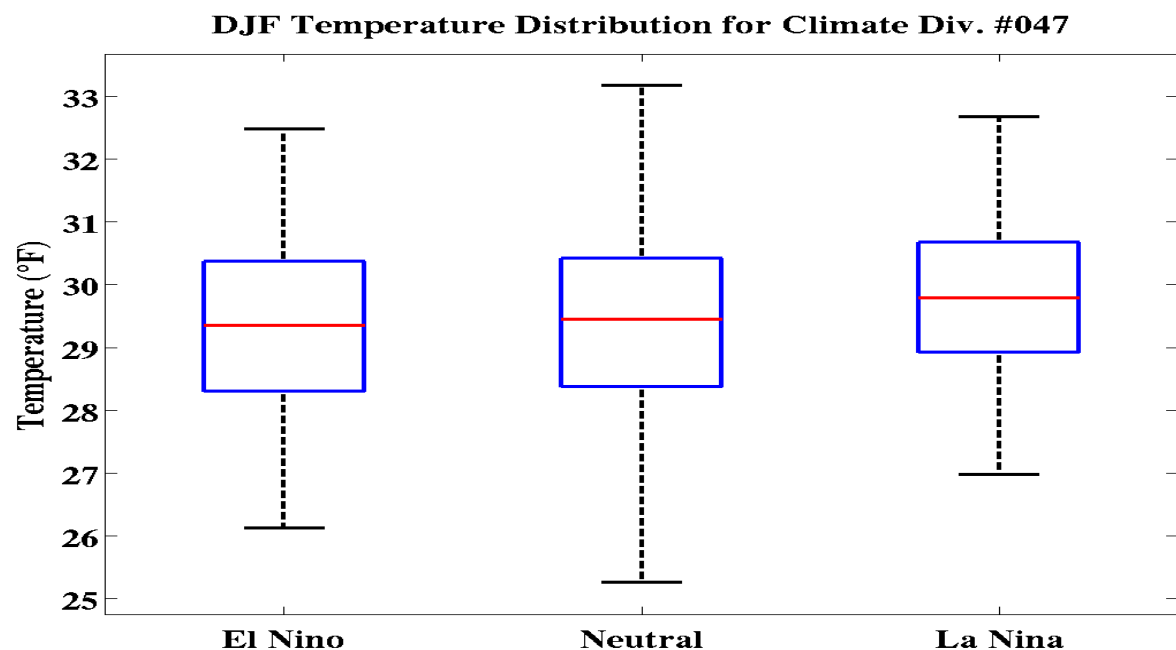


These projections are based on the current and the expected persistence of ENSO neutral (neither El Nino nor La Nina) conditions in the eastern Pacific Ocean, along with trends found within the past 30 years of data. With ENSO neutral conditions in place, other natural modes of climate variability will again play a bigger role in the weather patterns through the upcoming winter. One of the climate variability modes likely to affect the weather pattern through the winter is the Pacific Decadal Oscillation (PDO). The PDO is a long-term oscillation of the Pacific Ocean that fluctuates between positive and negative phases approximately every 20 to 30 years. The negative (cool) phase, which we are currently experiencing, is characterized by cooler than normal ocean temperatures in the eastern equatorial Pacific. This tends to keep high pressure in place across the US West Coast and lower pressure in place across the northern through central and eastern portions of the US. Other climate variability modes, such as the Arctic Oscillation (AO) and the Madden-Julian Oscillation (MJO), will also play a wildcard role in the weather for the upcoming winter, as these modes are not reliably predictable beyond a few weeks. More information on the PDO and other climate variability modes can be found at: <http://www.ncdc.noaa.gov/teleconnections/>

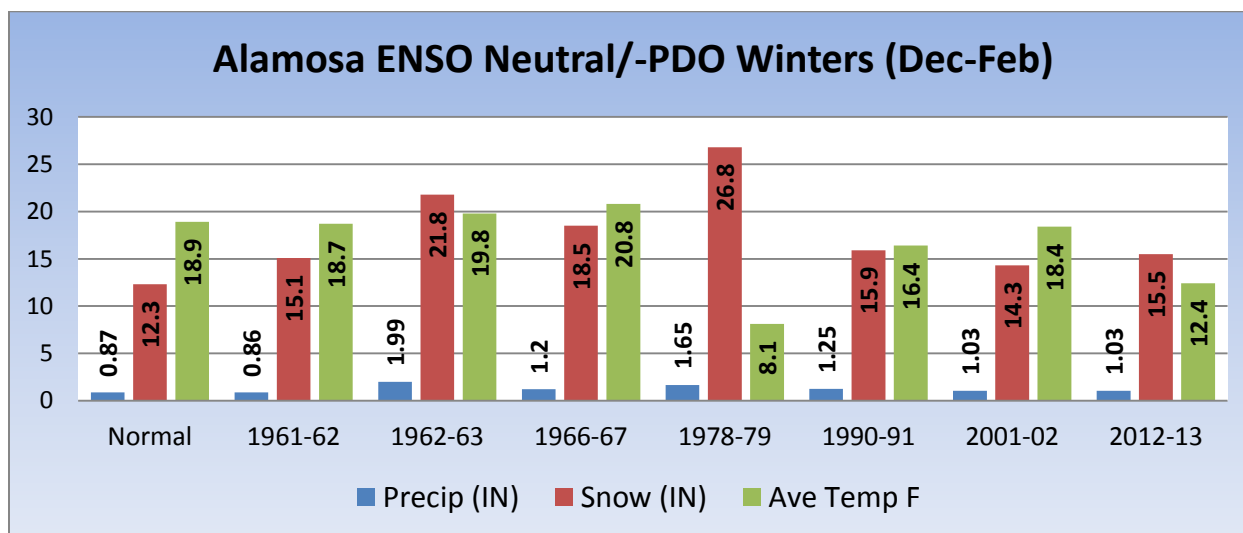
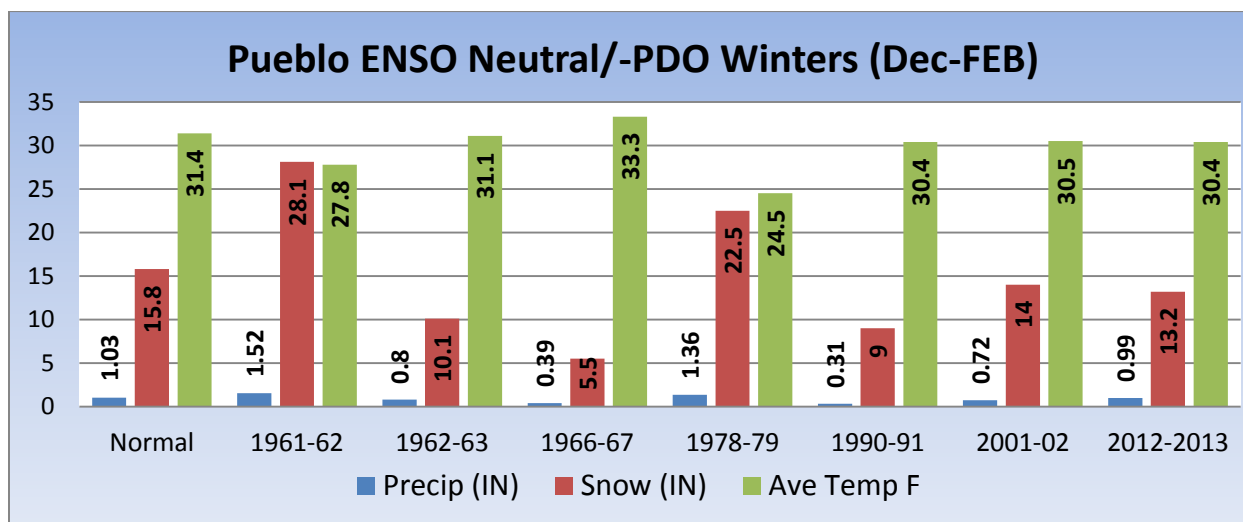
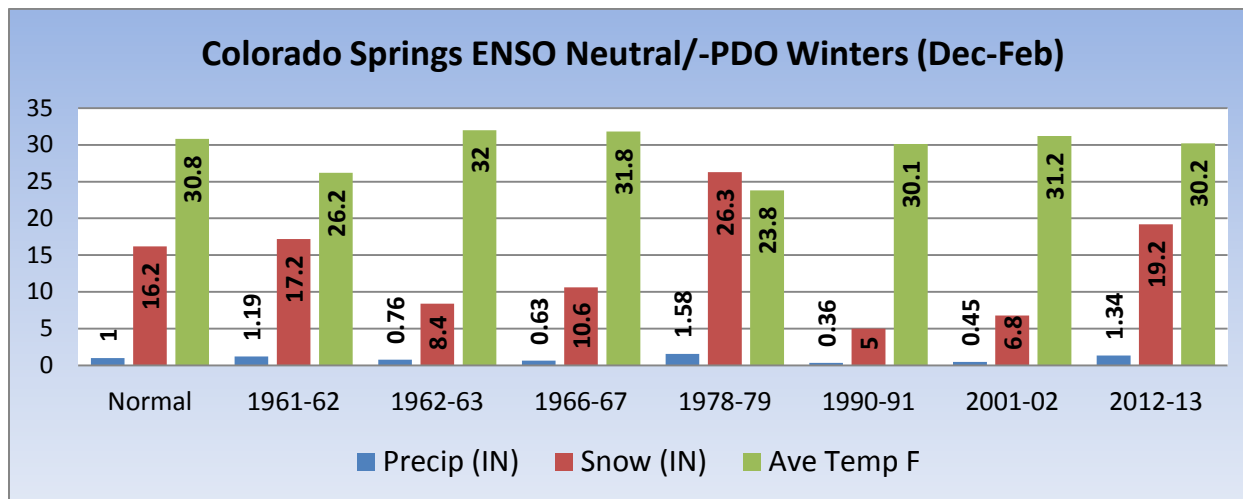
What does this mean for the upcoming winter season across south central and southeast Colorado?

There is no clear cut signal with equal chances of seeing above, below or near normal temperatures and precipitation across most of south central and southeast Colorado through the winter, save a slight tilt of seeing warmer and drier than normal conditions across extreme southern Colorado.

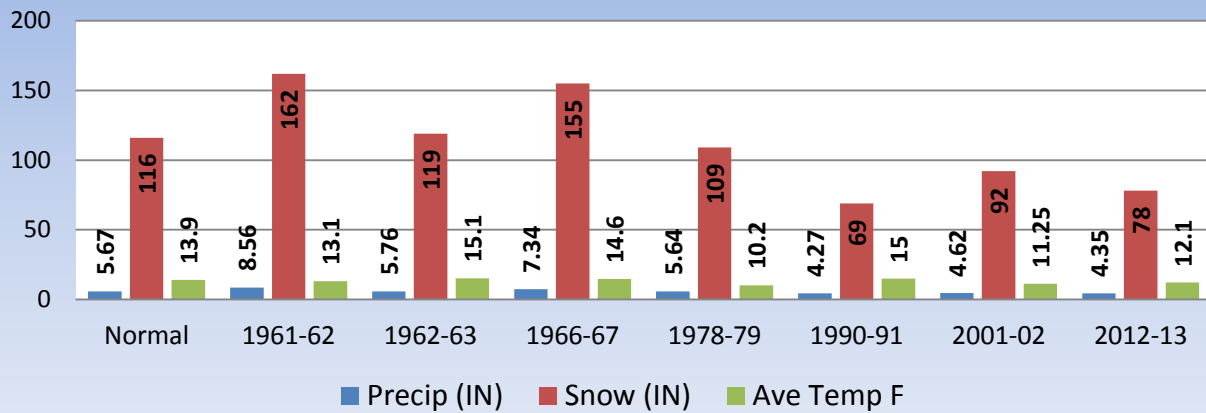
The following graphics from CPC helps to demonstrate why there is not a clearer picture for the upcoming winter. The box and whisker plots indicate a much wider range of possible temperature and precipitation distributions through ENSO neutral winters across south central and southeast Colorado, as compared to El Nino or La Nina winters.



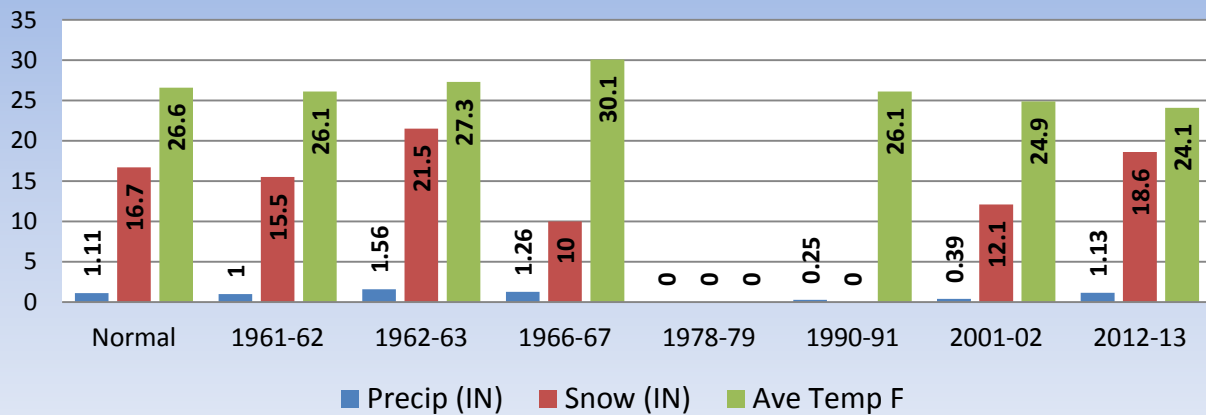
The next set of graphics are collected from the official observation sites for Colorado Springs, Pueblo and Alamosa, along with other COOP stations across south central and southeast Colorado during past ENSO neutral and negative PDO winters. Missing and incomplete data sets are represented by zeroes with some COOP stations only reporting precipitation data.



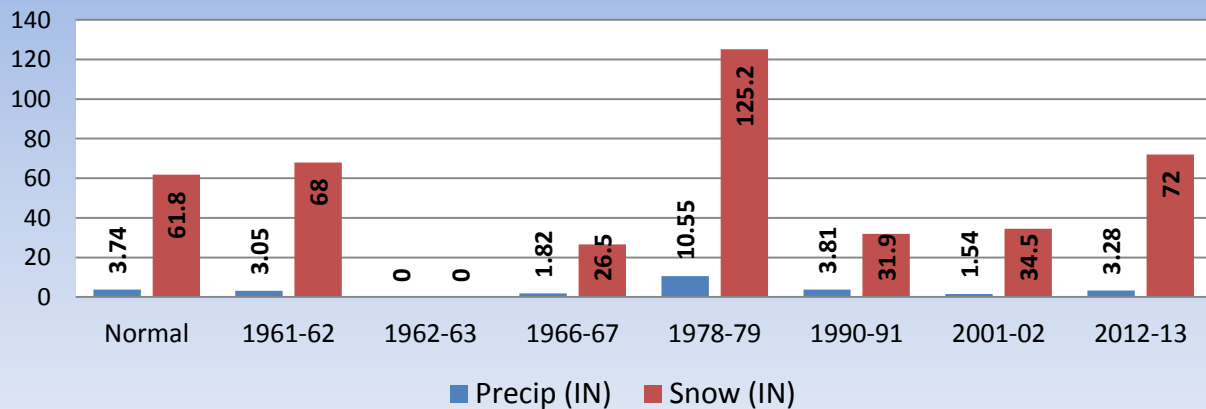
Climax ENSO Neutral/-PDO Winters (Dec-Feb)



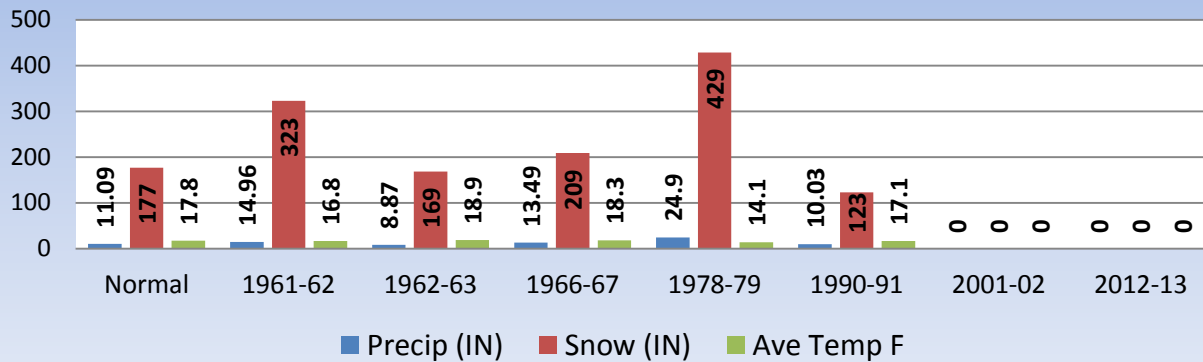
Buena Vista 2S ENSO Neutral/-PDO Winters (Dec-Feb)



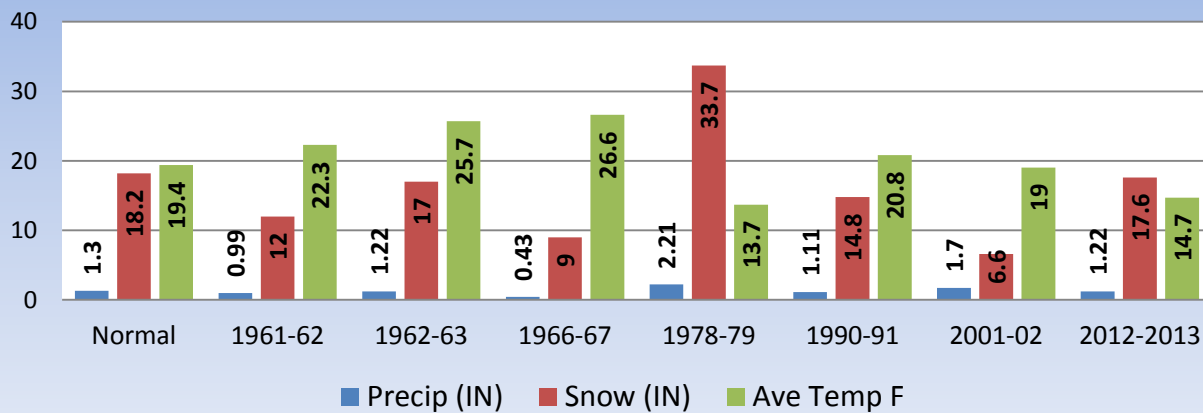
Sargents ENSO Neutral/-PDO Winters (Dec-Feb)



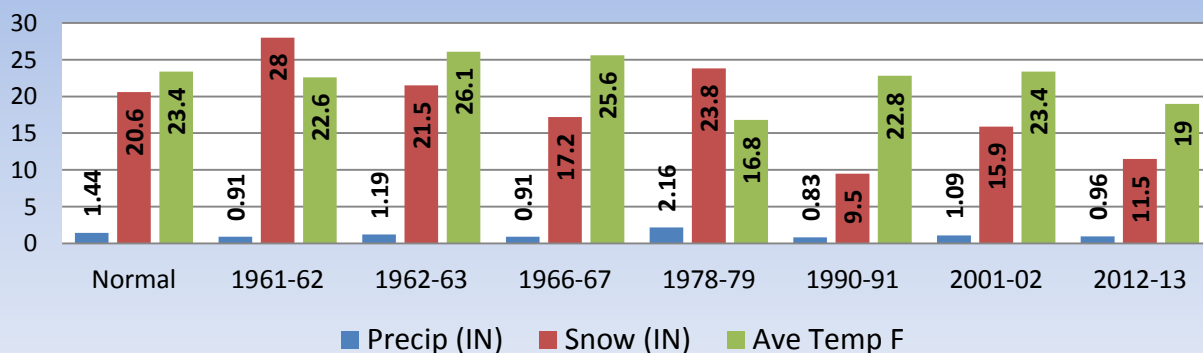
Wolf Creek Pass 1 East ENSO Neutral/-PDO Winters (Dec-Feb)



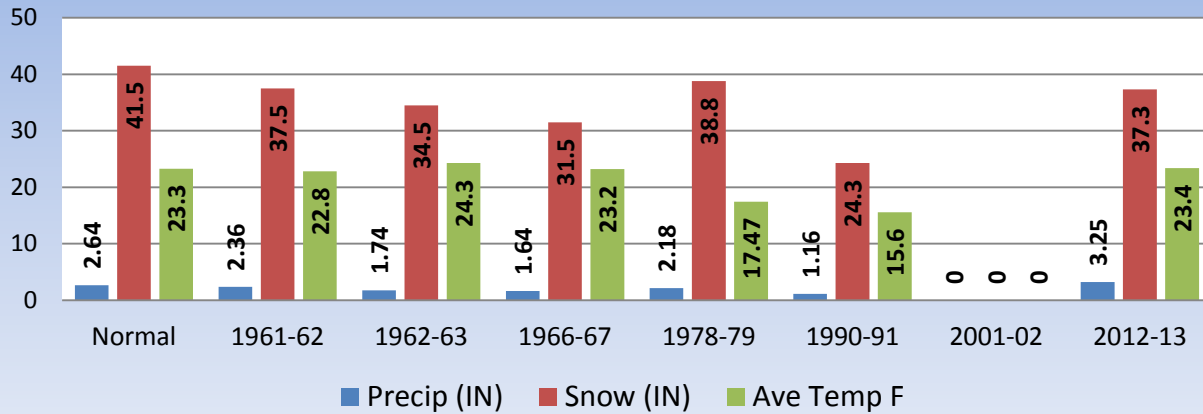
Del Norte 2 East ENSO/-PDO Winters (Dec-Feb)



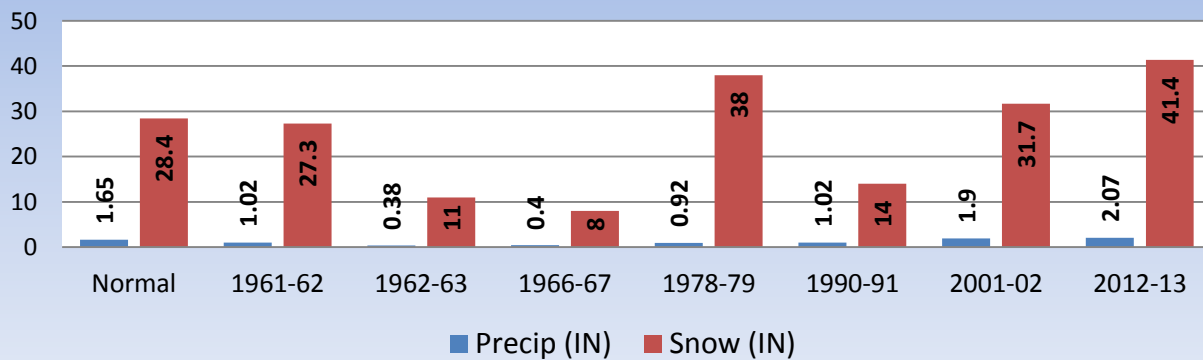
Great Sand Dunes NP ENSO Neutral/-PDO Winters (Dec-Feb)



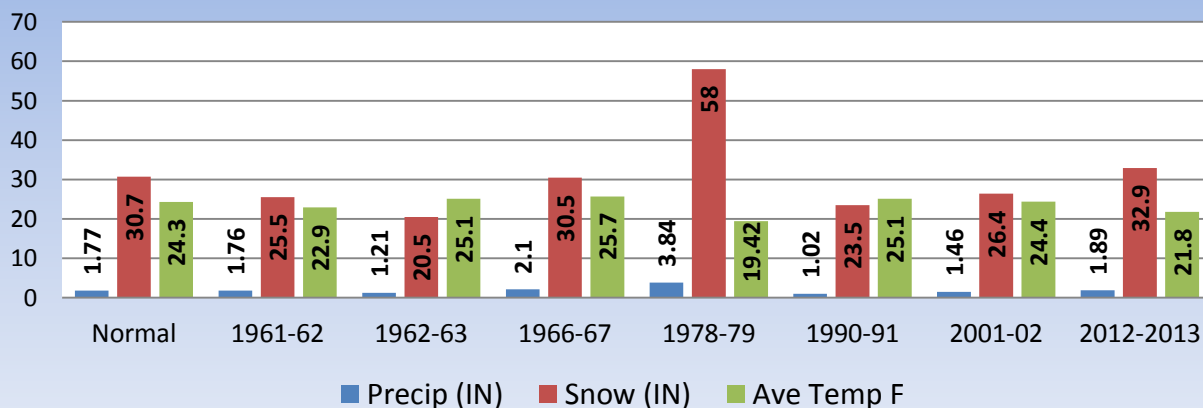
Ruxton Park ENSO Neutral/-PDO Winters (Dec-Feb)



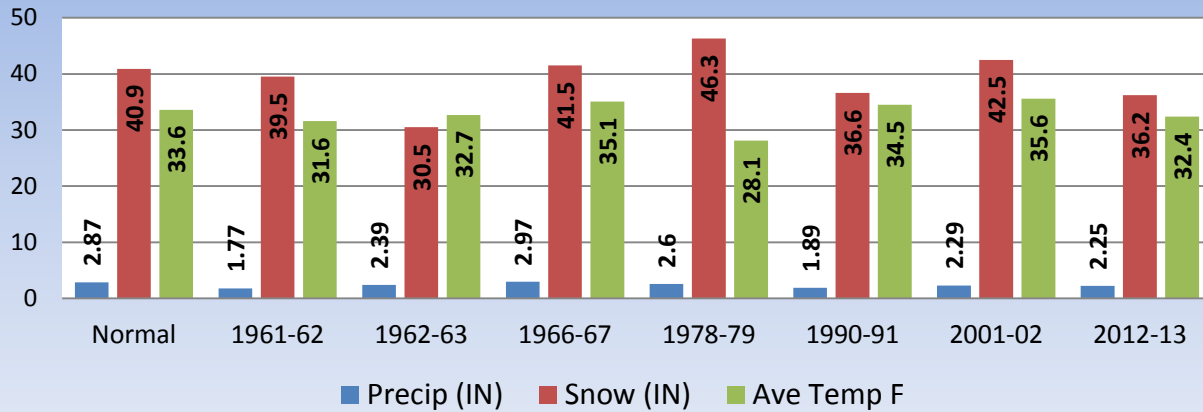
Eastonville 2NNW ENSO Neutral/-PDO Winters (Dec-Feb)



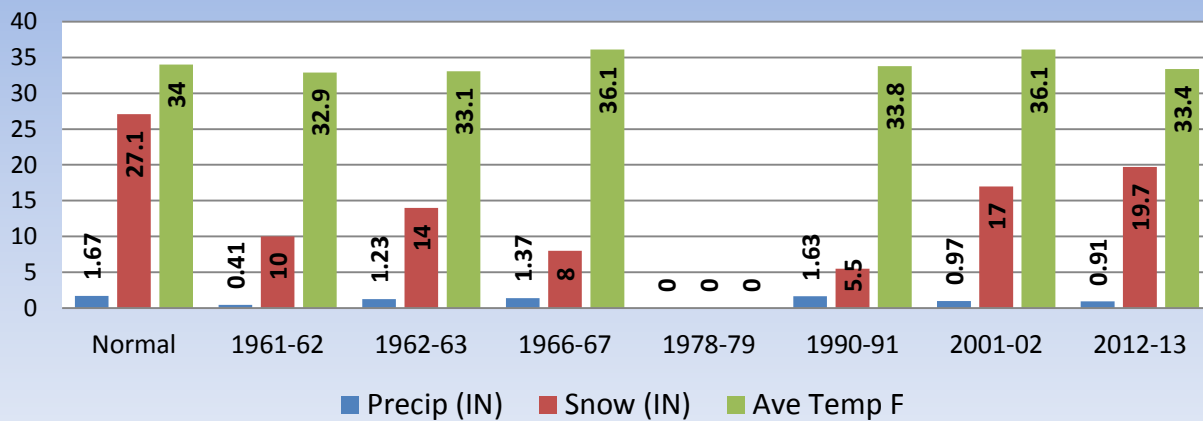
Westcliffe ENSO Neutral/-PDO Winters (Dec-Feb)



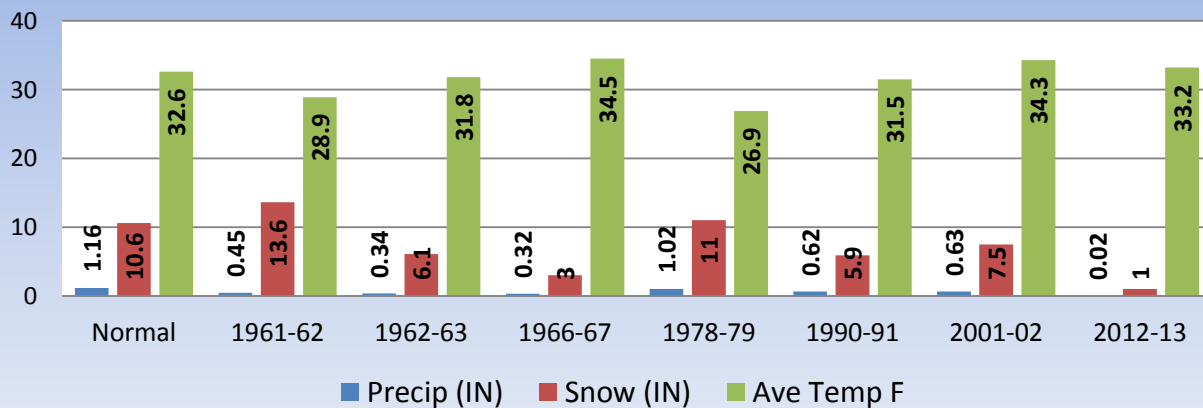
Walsenburg ENSO Neutral/-PDO Winters (Dec-Feb)



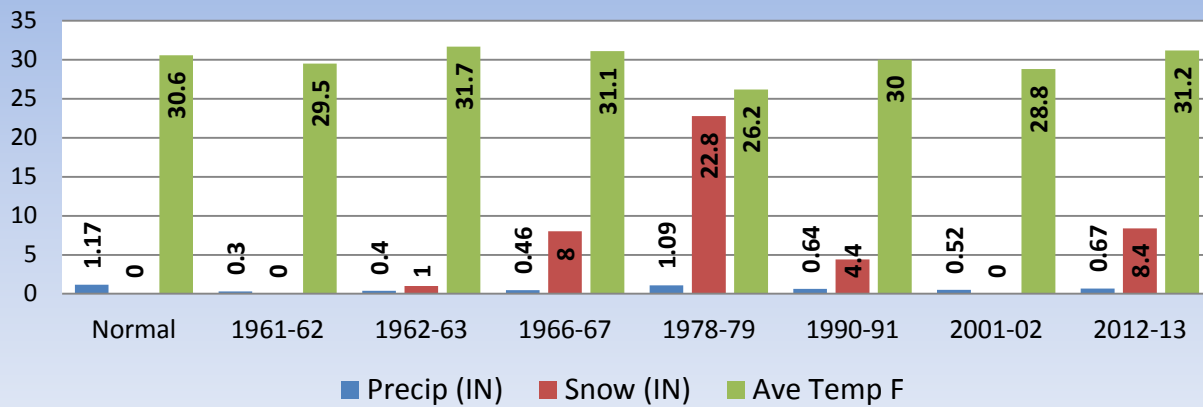
Trinidad ENSO Neutral/-PDO Winters (Dec-Feb)



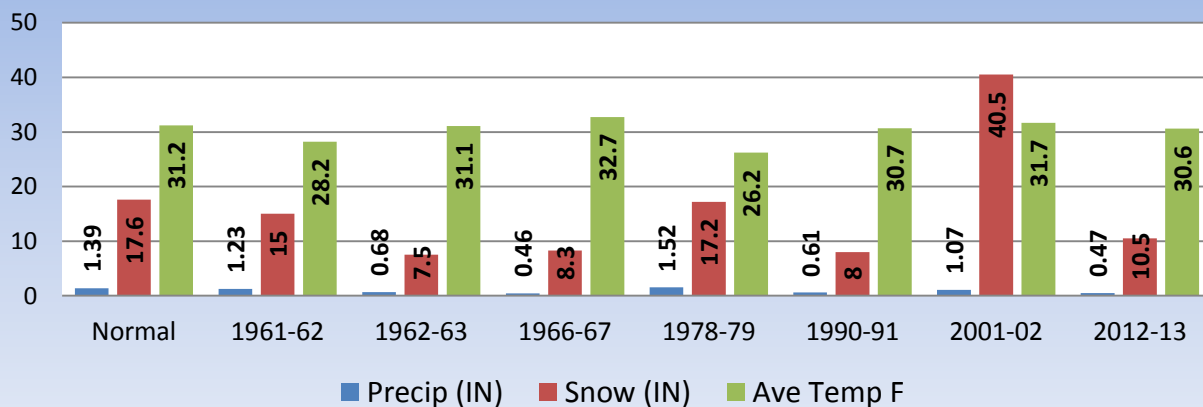
Las Animas ENSO Neutral/-PDO Winters (Dec-Feb)



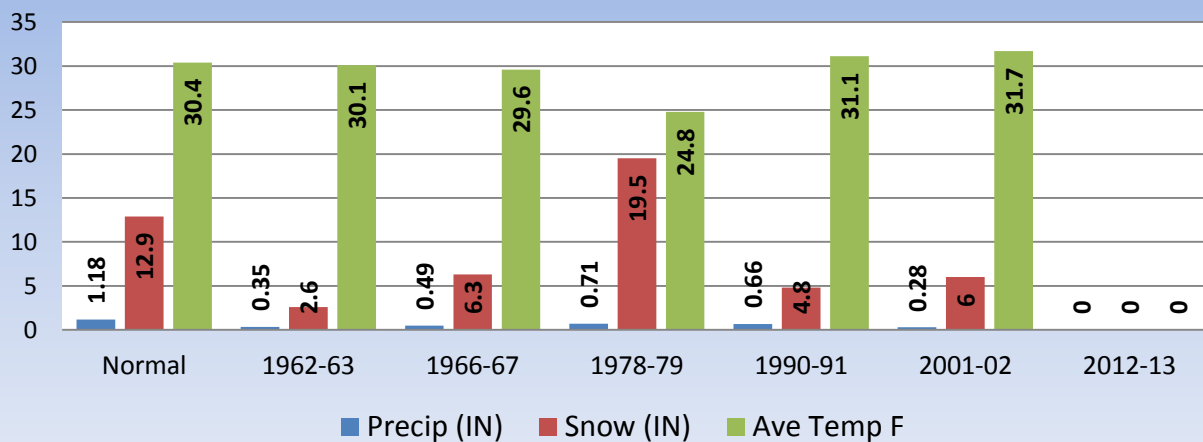
Eads ENSO Neutral/-PDO Winters (Dec-Feb)

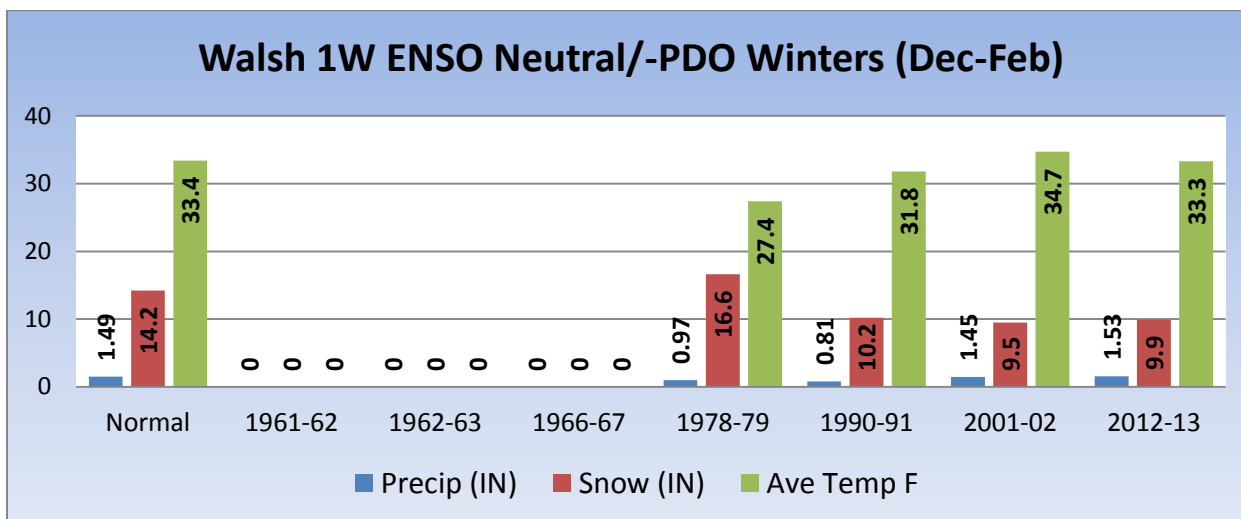
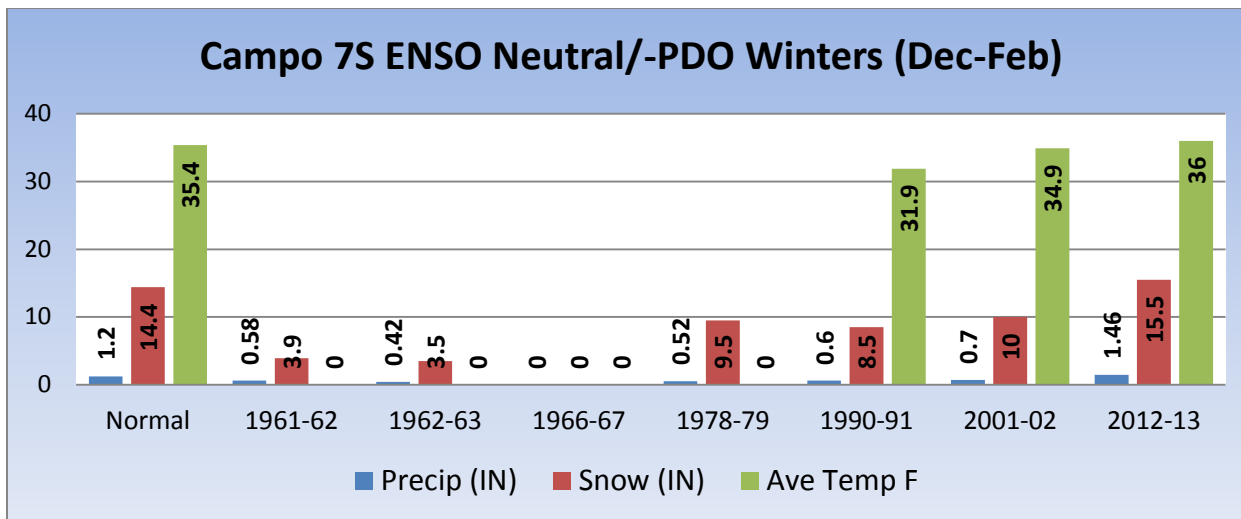


Lamar ENSO Neutral/-PDO Winters (Dec-Feb)



Holly ENSO Neutral/-PDO Winters (Dec-Feb)





The data collected from observation sites across south central and southeast Colorado during previous ENSO neutral and negative PDO winters also indicate a wide range of distribution, especially in precipitation. In looking at this limited data, a possible trend of near normal precipitation may be gleaned across portions of south central Colorado, along with a possible trend of below normal precipitation across southeast Colorado.

So what will happen this winter? We will still see snow and cold temperatures; however the frequency of storms may be decreased, especially across southeastern Colorado. Some recent long range computer projections do indicate increasing sea surface temperatures in the Equatorial Pacific later in the spring, which could signal the emergence of El Nino conditions next year, though time will tell. One thing that does seem certain is the likely persistence of drought conditions across southeast Colorado.

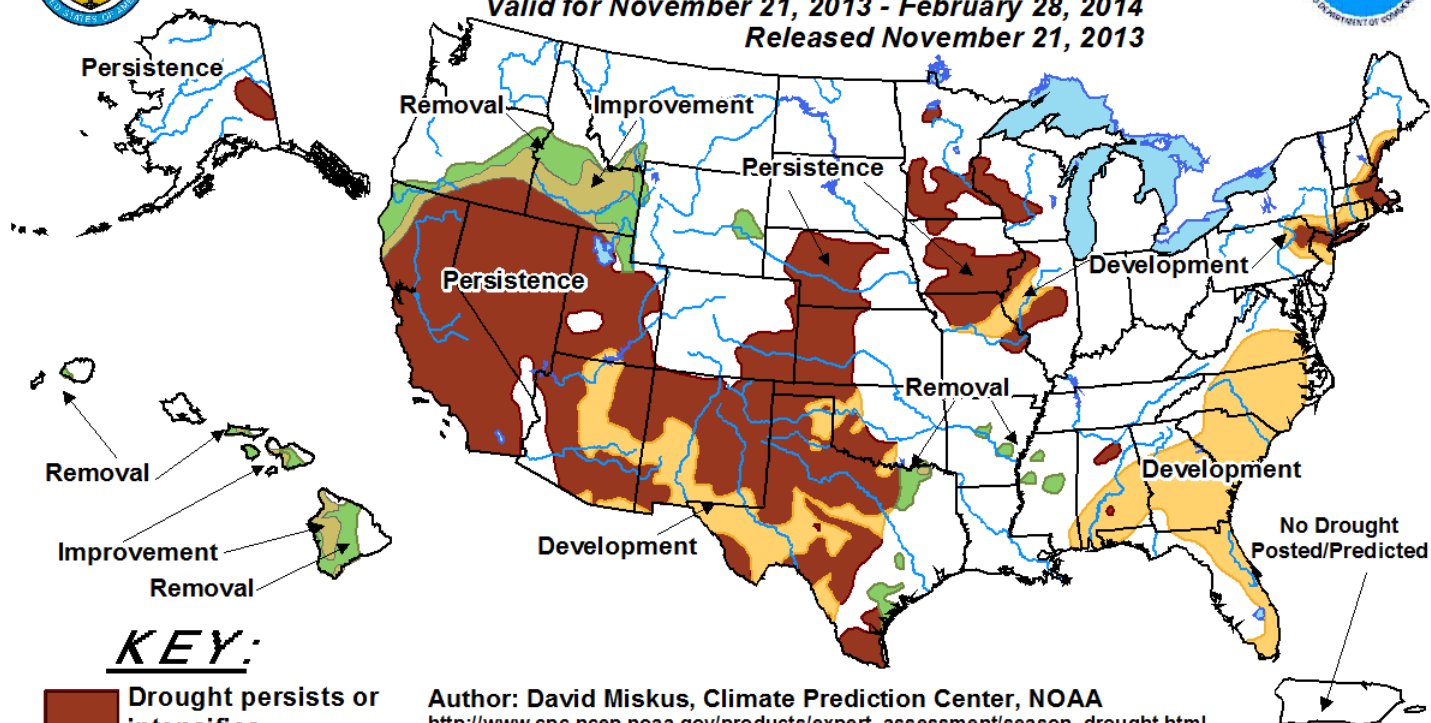


U.S. Seasonal Drought Outlook





Drought Tendency During the Valid Period

Valid for November 21, 2013 - February 28, 2014

Released November 21, 2013



KEY:

-  Drought persists or intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

Author: David Miskus, Climate Prediction Center, NOAA

http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity).

For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The tan area areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain.

The Green areas imply drought removal by the end of the period (D0 or none)